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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,163	08/23/2001	Yoshihiko Goto	249-190	9228
23117	7590	06/22/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			TRAN, HIEN THI	
			ART UNIT	PAPER NUMBER

1764

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/935,163		GOTO ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Hien Tran		1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11,16,17,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "104b" (Fig. 3).  
Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, it is unclear as to how the multilayer structure is related to the molded article set forth in claim 1.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 9, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Merry (5,686,039).

With respect to claims 1, 16, Merry discloses a catalytic converter comprising:

a catalyst carrier 12;

a casing 44; and

a catalyst carrier holding member 11 is fitted into a gap between the catalyst carrier 12 and the casing 44;

wherein the catalyst holding member 11 comprises: a three-dimensional molded article including flexible inorganic fiber bound by a binder in a compressed state;

wherein a surface in contact with the catalyst carrier is shaped substantially in conformity to an outer shape of the catalyst carrier;

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wherein a surface in contact with a casing is substantially in conformity to an inner shape of the casing, and

wherein said catalyst holding member has a thickness equal to or larger than the gap (see, for example, col. 3, line 51 to col. 4, line 29; col. 5, lines 10-67; col. 6, line 40 to col. 7, line 47).

With respect to claim 2, Merry discloses that the holding member includes an inorganic expansive admixture (see, for example, col. 5, lines 30-47; col. 6, lines 40-50).

With respect to claims 3, 17, Merry discloses that the holding member may include a mat and a molded layer which are different in composition (see, for example, col. 8, lines 10-13, 53-60).

With respect to claim 9, since the claim is directed to product claim, the method of forming the product is not germane to the issue of patentability of the product itself. It should be noted that when the patentability of a product-by-process claim is determined, the relevant inquiry is whether the product itself is patentable. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). If a product is the same as or would have been obvious to one having ordinary skill in the art from a product of the prior art, the product is unpatentable even though the prior art product was made by different process. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985). Since the product of the instant claim is the same as that of Merry, it is unpatentable even though the product of Merry maybe made by different process.

Instant claims 1-3, 9, 16-17 structurally read on the apparatus of Merry.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

10. Claims 5-7, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merry (5,686,039).

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Merry discloses that the binder includes an organic binder, or an inorganic binder or a combination of both (see, for example, col.5, lines 30-67).

Note that the specific percentage of binder is not considered to confer patentability to the claim. The precise percentage of the binder would have been considered a result effective variable by one having ordinary skill in the art. As such, without more, the claimed percentage can not be considered "critical". Accordingly, one having ordinary skill in the art would have routinely optimized the amount of binder in the system to obtain the desired holding thereof (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

11. Claims 8, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merry (5,686,039).

The apparatus of Merry is substantially the same as that of the instant claim, but is silent as to the specific length of the fibers. However, Merry discloses that the fibers suitable include the ones disclosed in US Patent No. 3,709,706. The fibers disclosed in US Patent No. 3,709,706 have the length within the instant range (see, for example, Figs. 1-4).

Accordingly, it would have been obvious to one having ordinary skill in the art to select an appropriate length for the fibers on the basis of its suitability for the intended use as a matter of obvious design choice to obtain the desired holding of the carrier thereof, absence showing any unexpected results, and since it has held that when the only difference between the prior art device and the claim was a recitation of relative size, and the device with the relative size would not perform differently than the prior art device, the claimed device was not patentable distinct.

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12. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merry (5,686,039) in view of Sanocki et al (5,882,608).

The apparatus of Merry is substantially the same as that of the instant claim, but fails to disclose whether the catalyst carrier holding member may have a slit and may be divided into at least two parts.

However, Sanocki et al discloses provision of a catalyst carrier holding member having slits which divide the catalyst carrier holding member into at least two parts (Figs 4A-8A).

It would have been obvious to one having ordinary skill in the art to provide slit to divide the holding member into at least two parts as taught by Sanocki et al in the apparatus of Merry on the basis of its suitability for the intended use as a matter of obvious design choice, absence showing any unexpected results thereof.

***Allowable Subject Matter***

13. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Claim 4 is allowed.

15. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest a catalytic converter comprising a catalyst carrier holding member having a composition varies continuously from the surface in contact with the catalyst carrier to the surface in contact with the casing.



***Response to Arguments***

16. Applicant's arguments filed 3/23/05 have been fully considered but they are not persuasive.

Applicants argue that in Merry reference it is impossible to control or orient the direction of the fibers. Such contention is not persuasive as Merry reference discloses all of the structural elements set forth in the instant claim and therefore meets the instant claim. Note that the concept of control the direction of the fibers is not required by the instant claim.

Applicants argue that Merry is silent about the casing, Merry does not disclose a surface in contact with the casing and substantially in conformity to an inner shape of the casing nor disclose a thickness of the catalyst holding member of equal to or larger than the gap. Such contention is not persuasive as the Merry does disclose provision of a catalyst holding member 11 mounted in the gap between the casing 44 and the catalyst carrier 12 (col. 4, lines 6-20; col. 8, lines 27-32).

Applicants argue that the percentage of the binder is critical per teaching on page 10, line 24 to page 11, line 2. Such contention is not persuasive as the language of the instant claim does not commensurate in scope with such teaching. Accordingly, one having ordinary skill in the art would have routinely optimized the amount of binder in the system to obtain the desired holding thereof (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

Applicants argue that the length of the fibers is critical. Such contention is not persuasive as Merry discloses that the fibers suitable including the ones disclosed in US Patent No.

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3,709,706. The fibers disclosed in US Patent No. 3,709,706 have the length within the instant range (see, for example, Figs. 1-4). Accordingly, it would have been obvious to one having ordinary skill in the art to select an appropriate length for the fibers on the basis of its suitability for the intended use as a matter of obvious design choice to obtain the desired holding of the carrier thereof, absence showing any unexpected results, and since it has held that when the only difference between the prior art device and the claim was a recitation of relative size, and the device with the relative size would not perform differently than the prior art device, the claimed device was not patentable distinct.

Applicants argue that Sanocki et al discloses a hybrid mounting system being structured in a single piece and not divided into at least two parts. Such contention is not persuasive as Sanocki et al discloses provision of a mounting mat having a layer of intumescent material and an insert formed of resilient, flexible, fibrous non-intumescent material and therefore meets the catalyst carrier holding member having "two parts" of the instant claims.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Hien Tran*

**Hien Tran  
Primary Examiner  
Art Unit 1764**

HT  
June 20, 2005